

**Abstract**

A hybrid optical network comprising a single channel optical ring network with a plurality of ring nodes and a star subnetwork. The star subnetwork comprises a central wavelength router, a plurality of combiners being connected to input ports of the central wavelength router, and a subset of the ring nodes of the ring network, each node of the subset including a tunable transmitter and a tunable receiver to communicate optical data packets over the star subnetwork. Optical data packets routed between two ring nodes of the subset over the star subnetwork are assigned a specific wavelength that determines the routing of the data packets through the central wavelength router. The invention further regards a method of routing data packets between a source ring node and a destination ring node of a hybrid optical network.

FIG. 1